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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,800	12/12/2001	Eric G. Lovett	279.353US1	9663
21186	7590	08/24/2004		
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER EVANISKO, GEORGE ROBERT	
			ART UNIT 3762	PAPER NUMBER

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/017,800

Applicant(s)

LOVETT ET AL.

Examiner

George R Evanisko

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3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 7-14, 21-27 and 33-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 15-20 and 28-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>                    </u>  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 7-14, 21-27, and 33-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions/embodiments, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/10/04.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15-20, 31, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by the Guidant Product Brochure, "Pacemaker System...Pacemakers". The brochure describes the rate smoothing on pages 6-45 to 6-48, being responsive to atrial and/or ventricular rate fluctuations (page 6-45), using different up and down percentages (page 6-47) that are programmable (page 6-46), and being used/selected/adjusted during a particular state, such as between the hysteresis rate and LRL, between the maximum pacing rate and LRL (page 6-47), between LRL and MSR (page 6-45 and 6-46), and using rate windows (page 6-46 and 6-47).

Claims 1, 2, 15-20, 31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Boute et al (4503857). Boute describes the use of rate smoothing (columns 9 and 10) that can be used for atrial modes (column 11, line 61), using different upward and downward rates of change (column 9, lines 49-51) and being used when the rate either increased or decreased by a certain percentage (column 9).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-6 and 29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Guidant product brochure (or Boute et al for claims 3-6 and 29). The system is for a pacemaker and bases it on atrial and ventricular signals and therefore will include a cardiac electrode (claim 2). In addition, the state detector will include some sort of comparator with a threshold input to compare the two and output when the predetermined state occurs since the device operates when certain thresholds or heart rates are reached (claim 3). Also, the system does select the first and second percentages based on the determined state since it will select the percentages programmed when the state is determined (claim 29).

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In the alternative, the Guidant brochure (or Boute) discloses the claimed invention except for the cardiac electrode, the comparator with threshold input and state output, and the selection of the first and second percentages based on the determined state. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pacemaker system and method as taught by the Guidant brochure (or Boute), with a cardiac electrode, the comparator with threshold input and state output, and the selection of the first and second percentages based on the determined state since it was known in the art that pacemaker systems and methods use: a cardiac electrode to sense heart rate to determine if a particular event is occurring to determine whether to pace the heart or not; a comparator with threshold input and state output to compare the heart rate to different predetermined inputs to provide an output of the comparison to allow the pacemaker to easily determine if a particular event has occurred; and the selection of the first and second percentages based on the determined state to allow multiple rates of smoothing to be used depending on the severity of the heart rate.

Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Guidant product brochure (or Boute).

The Guidant product brochure (or Boute) discloses the claimed invention except for using a look-up table to map and select the first and second rate smoothing percentages to the predetermined state (claims 28 and 30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pacemaker system and method as taught by the Guidant brochure (or Boute), with a look-up table to map and select the first and second rate smoothing percentages to the predetermined state since it was known in the art that

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pacemaker systems and methods use look-up table to map and select different values to predetermined states to save computational time and energy.

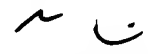
*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stroebel et al and Legay et al are two examples of many showing the use of look up tables.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R Evanisko whose telephone number is 703 308-2612. The examiner can normally be reached on M-F 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 703 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
George R Evanisko  
Primary Examiner  
Art Unit 3762

8/19/4

GRE  
August 18, 2004